

In the Claims

Please replace all prior versions and listings of claims in the application with the following list of claims:

1. (Currently Amended) A variable ~~capacitance~~-capacitor formed in a semiconductor substrate with a ribbed surface having a plurality of ribs, the capacitor having a first electrode formed of all the ribs protruding from the substrate, of portions of the substrate underlying the ribs, and of at least portions of the substrate separating the bases of two of the ribs, and having a second electrode superposed to at least one portion of the first electrode, wherein the ribs are either; irregular in terms of planar base surface area;
non-identical in terms of planar base surface area; or
identical in terms of planar base surface area and non-identical in terms of cross-section.
2. (Currently Amended) The ~~capacitance~~-capacitor of claim 1, wherein the ribs are identical in terms of planar base surface area and non-identical in terms of cross-section, and wherein two successive ribs exhibit non-parallelepiped shaped trapezoidal bases of same surface areas.
3. (Currently Amended) The ~~capacitance~~-capacitor of claim 2, wherein two successive ribs are arranged in quincunx.
4. (Currently Amended) The ~~capacitance~~-capacitor of claim 1, wherein the ribs are non-identical in terms of planar base surface area, and wherein two successive ribs exhibit non-rectangulared shaped trapezoidal bases of different surface areas.
5. (New) The capacitor of claim 1, wherein the ribs are non-identical in terms of planar base surface area.

6. (New) The capacitor of claim 1, wherein the ribs are identical in terms of planar base surface area and non-identical in terms of cross-section.

7. (New) The capacitor of claim 6, wherein the capacitor comprises a variable capacitance that varies uniformly according to voltage.

8. (New) The capacitor of claim 5, wherein the capacitor comprises a variable capacitance that varies uniformly according to voltage.

9. (New) The capacitor of claim 6, wherein the variable capacitor comprises a lightly-doped N-type substrate superposed by a heavily-doped N-type surface; and
wherein the lightly-doped N-type substrate and the heavily-doped N-type surface are further superposed by a conductive material.

10. (New) The capacitor of claim 5, wherein the variable capacitor comprises a lightly-doped N-type substrate superposed by a heavily-doped N-type surface; and
wherein the lightly-doped N-type substrate and the heavily-doped N-type surface are further superposed by a conductive material.

11. (New) The capacitor of claim 6, wherein the variable capacitor comprises a reversed-biased PN junction Schottky diode comprising a heavily-doped P-type surface formed in a heavily-doped N-type region.

12. (New) The capacitor of claim 5, wherein the variable capacitor comprises a reversed-biased PN junction Schottky diode comprising a heavily-doped P-type surface formed in a heavily-doped N-type region.